

| L Number | Hits | Search Text | DB | Time stamp |
|----------|-------|--|---|------------------|
| 1 | 49825 | lookup adj table) (look adj up adj table) (look-up adj table | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 15:40 |
| 2 | 954 | preamble near3 (size length) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 15:44 |
| 3 | 3 | (lookup adj table) (look adj up adj table) (look-up adj table) same (preamble near3 (size length)) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 15:42 |
| 4 | 125 | (lookup adj table) (look adj up adj table) (look-up adj table) and (preamble near3 (size length)) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 15:43 |
| 5 | 1408 | walsh adj code | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 15:43 |
| 6 | 3 | ((lookup adj table) (look adj up adj table) (look-up adj table) and (preamble near3 (size length))) and (walsh adj code) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 15:43 |
| 7 | 1195 | preamble near5 (size length) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 15:45 |
| 8 | 4 | (lookup adj table) (look adj up adj table) (look-up adj table) and (preamble near5 (size length)) and (walsh adj code) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 15:52 |
| 9 | 12 | (lookup adj table) (look adj up adj table) (look-up adj table) same (walsh adj code) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 15:56 |
| 10 | 124 | (lookup adj table) (look adj up adj table) (look-up adj table) and (walsh adj code) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 15:56 |
| 11 | 14 | preamble and ((lookup adj table) (look adj up adj table) (look-up adj table) and (walsh adj code)) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 15:56 |

DOCUMENT-IDENTIFIER: US 20010055319 A1

TITLE: Robust techniques for optimal
upstream communication
between cable modem subscribers and
a headend

----- KWIC -----

Detail Description Paragraph - DETX (135):

[0242] The unique word 721 is in a distinctive symbol pattern to indicate the end of the preamble 720 and the beginning of the payload 723. The payload 723 may be of variable size depending upon the length of the communication from the subscriber modem 12 to the headend 10. The equalizer train 722 may be provided between the unique word 721 and the payload 723. The equalizer train 722 may be in a random sequence. It is provided during the initialization period to train the equalizer to provide proper coefficients to the subscriber modem 12.

Detail Description Paragraph - DETX (411):

[0518] The size of the payload that can be transmitted in a specified number of time slots depends on the burden imposed by the data transmission format. This size is called the burdened PHY length. In one embodiment, the burdened PHY length is determined by a forward lookup table using the total length of the data in bytes as an index. Each time a request is made by a cable modem, the forward lookup table is accessed using the total length and the burdened PHY length is retrieved for transmission to the CMTS as the request. Grants are transmitted to the cable modems in terms of burdened

PHY length. The total length of the data in bytes that can be transmitted pursuant to a grant is determined by a reverse lookup table using the burdened PHY length as an index. The forward and reverse lookup tables are created each time that the burst profile changes and are stored in memory for use in processing requests and grants at the cable modem. Alternatively, the conversion between total length and burdened PHY length could be carried out as described in application Ser. No. 60/489,998 filed on Jan. 15, 1998.

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|----------|-------|---|---|------------------|
| 1 | 227 | preamble same size same length | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 08:39 |
| 2 | 49825 | lookup adj table) (look adj up adj table) (look-up adj table | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 07:21 |
| 3 | 2 | (preamble same size same length) same (lookup adj table) (look adj up adj table) (look-up adj table) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 07:22 |
| 4 | 49 | (preamble same size same length) and (lookup adj table) (look adj up adj table) (look-up adj table) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 08:17 |
| 5 | 47 | rate and ((preamble same size same length) and (lookup adj table) (look adj up adj table) (look-up adj table)) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 08:17 |
| 6 | 954 | preamble near3 (size length) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 08:40 |
| 7 | 3 | (lookup adj table) (look adj up adj table) (look-up adj table) same (preamble near3 (size length)) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 08:49 |
| 9 | 81 | 6.clm. | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 08:49 |
| 10 | 6 | (lookup adj table) (look adj up adj table) (look-up adj table) and 6.clm. | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 08:49 |
| 8 | 125 | (lookup adj table) (look adj up adj table) (look-up adj table) and (preamble near3 (size length)) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2003/06/02 08:52 |

US-PAT-NO: 6292051

DOCUMENT-IDENTIFIER: US 6292051 B1

TITLE: Architecture of non-synchronous open
loop demodulation
circuit in pulse position modulation

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Brief Summary Text - BSTX (26):

Preferably the demodulator includes a subtractor for subtracting a respective the peak address by the symbol start address, an adder electrically connected to the subtractor for adding a constant to a difference between the respective peak address and the symbol start address, and a missing symbol detector electrically connected to the adder for comparing the respective peak address and a preceding peak address to check whether there is a missing symbol. Certainly, the demodulator can be a software for demodulating a respective the peak address stored in a memory unit. The source signal can be an infrared signal through an offset differential pulse position modulation. Tile offset differential pulse position modulation can be modulated by an operation equation of $T_i = D + d_i \cdot R + S$ where T_i is symbol period, D is offset, d_i is the data, R is the unit waiting time and S is required infrared transmitting time.

Detailed Description Paragraph Table - DETL (2):

TABLE 2 Variable Example Data Rate R_d 10 Mbps Number
of Slots M 4
(4-ary) Symbol Rate $R_{\text{symbol}} = R_d \cdot \log_{\text{sub.2}} M$ 5
MHZ Slot Rate

$R_{sub.slot} = M \cdot \text{times} \cdot R_d \cdot \text{div} \cdot \log_{sub.2} M \cdot 20 \text{ MHz}$
Sampling Rate F_s 80 MHz
Samples Per Slot $K = f_s \cdot \text{div} \cdot R_{sub.slot} \cdot 4$ Packet Size
(bits) $N = N_p + N_t + N_d$
2048 Preamble Length (bits) N_p 70 Training length (bits)
 N_t 256 Data length
(bits) N_d 1742

Claims Text - CLTX (31):

13. An architecture according to claim 8 wherein said demodulator is a software for demodulating a respective said peak address stored in a memory unit.